REMARKS

The Examiner is thanked for the thorough examination of the present application. The Abstract has been amended to address the noted informalities, as helpfully pointed out by the Examiner. Independent Claim 1 has also been amended to address the noted informality.

Submitted herewith is a terminal disclaimer on behalf of the Assignee, STMicroelectronics, Inc. Accordingly, the provisional non-statutory double patenting rejection is overcome.

Independent Claims 1, 10, 19, and 28 have been amended to incorporate the subject matter of their respect dependent Claims 2, 11, 20, and 29, which have been canceled for consistency therewith. Dependent Claims 3 and 30 have been re-written in independent form as Claims 36 and 39, and Claims 3 and 30 have been canceled accordingly. Claims 37-38 and 40-41 are newly added dependent claims having subject matter similar to that of original Claims 4, 9, 31 and 35, respectively. No new matter is being added.

In view of the foregoing and the arguments presented in detail below, it is submitted that all of the claims are patentable.

I. The Claimed Invention

The present invention is directed to an integrated circuit for a smart card. As recited in amended independent Claim 1, for example, the integrated circuit includes a transceiver and

a processor for communicating with a host device via the transceiver. The processor is for providing at least one default descriptor to the host device, cooperating with the host device to perform an enumeration based upon the at least one default descriptor, and detecting a system utilization metric exceeding a threshold and, responsive to the system event, providing at least one alternate descriptor to the host device and cooperating with the host device to perform a new enumeration based thereon.

Independent Claim 10 is directed to a related smart card, independent Claim 19 is directed to a related smart card system, and independent Claim 28 is directed to a related method. As noted above, newly added independent Claims 36 and 39 include the subject matter of original dependent Claims 3 and 30, and are directed to a similar integrated circuit and related method, respectfully.

II. The Claims Are Patentable

A. Independent Claims 1, 10, 19, and 28

The Examiner rejected dependent Claims 2, 11, 20, and 29 (the subject matter of which has respectively been incorporated in independent Claims 1, 10, 19, and 28) based upon U.S. Published Patent Application No. 2005/0251596 to Maier in view of U.S. Published Patent Application No. 2005/0108571 to Lu et al. Maier is directed to a USB system including a main device and an auxiliary device arranged to co-operate with one another.

The auxiliary device provides a core functionality and has descriptors associated therewith. More particularly, the auxiliary device has at least one descriptor that defines a functionality that is different from the core functionality. See, e.g., paragraph 0016-0019 of Maier.

The Examiner contends that while Maier does not expressly teach all of the structural elements of the integrated circuit recited in Claims 2, 11, 20, and 29, it teaches all of the functionality recited in these claims and that the structure is inherent. As support for this inherency, the Examiner points to Lu et al., which is directed to a system providing secure communication between a resource-constrained device, such as network smartcard, and remote network nodes over a network, where the smartcard acts as a network node.

As noted above, independent Claims 1, 10, 19, and 28 have been amended to recite that the processor selectively removes the attachment signal based upon a system utilization metric exceeding a threshold. The Examiner contends in paragraph 17 of the Office Action that this recitation is somehow taught in paragraph 0055 of Maier. Applicant respectfully submits, however, that Maier fails to teach this recitation. Rather, in paragraphs 0042-0057, Maier discloses a scenario in which during a first enumeration procedure, only the standard service **SO** of the USB device is loaded and activated for use (see paragraphs 0043-0044 of Maier), but additional services to be subsequently activated are then negotiated between the host and the smart card (see

paragraphs 0045-0048 of Maier). Thereafter, a negotiation flag is set indicating that the additional services to be activated have already been negotiated, and the USB device detaches and re-attaches itself to the USB bus. A second enumeration then takes place in which, because the negotiation flag is already set, only the descriptors associated with the additional services to be activated are loaded (see paragraphs 0049-0056 of Maier).

Accordingly, the reason that the USB device in the Maier system detaches and re-attaches to the USB bus is NOT based upon a system utilization metric exceeding a threshold. Rather, the reason for its detachment has nothing to do with any system utilization metric, but instead is merely for the purpose of installing additional services not originally initialized with the device. The point of this configuration is to make the USB device appear as a mass storage device to the host. As noted at paragraph 0018 of Maier:

> "the Smart Card (USB device) is seen as a mass storage. It is then possible to install a driver and/or an application from the USB device by simulating that the USB device is a mass storage. The USB device can thus be used in any USB host, even if the driver(s) are not installed nor available, since the driver(s) is(are) available in the USB device itself. A user can thus use, for example, the login application directly from the USB device."

In stark contrast, the invention recited in the above-noted claims advantageously allows re-enumeration using one or more alternate descriptors to allow it to more efficiently utilize limited bus bandwidth when the utilization metric indicates that bus utilization is above the threshold, for example. See, e.g., paragraph 0015 of the originally filed specification.

Maier simply fails to teach or fairly suggest the above-noted deficiency, as does the remaining prior art of record. Accordingly, it is submitted that independent Claims 1, 10, 19, and 28 are patentable over the prior art. Their respective dependent claims, which recite yet further distinguishing features, are also patentable over the prior art and require no further discussion herein.

B. Independent Claims 36 and 39

As noted above, dependent Claims 3 and 30 have been re-written as independent Claims 36 and 39, respectively. The Examiner also rejected Claims 3 and 30 based upon Maier in view of Lu et al. As support for his contention that Maier teaches all of the recitations of Claims 3 and 30, the Examiner points to paragraph 0019 of Maier, which is reproduced below.

> "**[0019]** In addition, an Internet Service Provider can, for example, define its own proprietary login application and store it on the Smart Card itself (USB device). The risk of hacking the login application is therefore reduced."

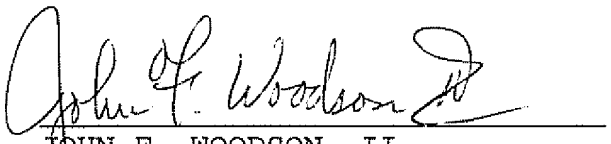
It is respectfully submitted that Maier fails to teach or fairly suggest all of the recitations of Claims 36 and 39. In particular, the above-quoted paragraph merely states that the Maier system allows propriety ISP logon applications to be stored on a user's personal smart card, rather than on the host computer, which purportedly reduces the risk of hacking. See paragraph 0058 of Maier. However, neither the above-quoted text nor any other text in Maier teaches or fairly suggests that the USB device should or even could detach/re-attach itself and perform are re-enumeration based upon an occurrence of attempted unauthorized communications. The remaining prior art of record similarly fails to teach or fairly suggest this noted deficiency.

Thus, it is submitted that independent Claims 36 and 39 are patentable over the prior art. Their respective dependent claims, which recite yet further distinguishing features, are also patentable over the prior art and require no further discussion herein.

CONCLUSION

In view of the foregoing, it is submitted that all the claims are patentable. Accordingly, a Notice of Allowance is requested in due course. Should any minor informalities need to be addressed, the Examiner is encouraged to contact the undersigned attorney at the telephone number listed below.

Respectfully submitted,



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